

# Montgomery County Energy Policy Review

The County Executive's Annual  
Report to the County Council

January 7, 2005



The Mountaineer Wind Energy Facility in West Virginia is the source of renewable power supplying five percent of the electricity purchased by the Montgomery County electricity buying group.



# Energy Policy Review

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## BACKGROUND

Chapter 18A of the County Code addresses Energy Policy, and requires that the County Executive report to the County Council each year about the continuing appropriateness of the Energy Policy adopted in 1995. The code also calls for development of an annual energy work program, and establishment of long-range goals to accomplish the policy objectives. The Department of Environmental Protection is responsible for implementation of the Code requirements.

The annual Energy Policy Report is optimally submitted at a date that coincides with the annual review of all County agencies' Resource Conservation Plans, so as to ensure that the Council has complete information with which to evaluate the resource management activities of all agencies, and make any policy adjustments deemed necessary to improve energy management efforts. Following is the ninth annual report.

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## From the DEP Director

The manner in which we consume energy has a direct effect on the quality of our environment. Overdependence on fossil fuels and reliance on inefficient energy consumption - from our vehicles, homes, and appliances, directly impacts our air and water quality. Sound management of our energy resources is key to environmental protection and is a major factor in our pursuit of a sustainable future. The Department of Environmental Protection's award-winning energy program strives to identify sound and innovative energy management practices, both within government, as well as within our growing business and residential communities. And while ongoing, the program has proven successful in developing numerous strategies to realize these practices, and has provided substantial community outreach to guarantee success in the efficient utilization of our vital energy resources and assure the necessary protection of our environment and public health.

### **James A. Caldwell**

Director, Department of Environmental Protection

# Energy Policy Review

The Montgomery County Energy Policy was adopted in 1995. Since then, several amendments to the policy have been made, and resolutions and bills have been passed that directly impact the implementation of the Energy Policy. These are summarized as follows:

## February 2000

In October 1999, the County Executive recommended limited changes to the Energy Policy in response to the deregulation of the electric power industry. In February 2000, the Council approved these, which enabled County agencies to purchase electric power competitively as a buying group.

## July 2000

In March 2000, the County Executive introduced a resolution to make Montgomery County a member of the International Council for Local Environmental Initiatives' (ICLEI) Cities for Climate Protection (CCP) program. The Council passed the resolution in July of 2000. As a member of CCP, the County resolved to conduct an inventory of greenhouse gas (GHG) emissions within the County, set a goal for reduction of emissions, and develop an Action Plan for greenhouse gas mitigation.

## March 2003

The County Executive and County Council passed a resolution to amend the Energy Policy to incorporate the purchase of renewable energy generated electricity and to expand energy efficiency efforts. This resolution required all county agencies to make best efforts to purchase five percent of their total electricity supply as power that is generated using zero-emission renewable resources as a portion of the cooperative competitive electricity procurement. In the case of wind energy, the resolution spelled out certain environmental requirements. The resolution also called for enhanced energy efficiency efforts through simple behavioral changes to ensure that electricity is not wasted, and for energy audits of at least three County facilities.

## July 2003

The Council passed a resolution establishing an over-arching County Environmental Policy, and provided for a task force, with representation from all County agencies, to be responsible for drafting an Environmental Issues and Actions Report. The resulting draft report identifies "energy" as one of ten priority issues to be addressed by all County agencies and departments through the development of Environmental Action Plans and the implementation of Best Management Practices. The report states: "It has been demonstrated that cooperation among the various agencies of County government is an effective means of implementing energy efficiency programs and projects, such as the activities of the Interagency Committee on Energy and Utilities Management (ICEUM)."

chase buying group. The resolution urged WSSC to continue with the joint-purchase for the five percent renewable energy portion of the electricity contract. WSSC supported the resolution and announced that it will purchase five percent wind energy as part of the County's joint purchase of electricity, while continuing with an independent program of energy performance contracting that includes electricity supply and demand management.

A "secure and sustainable" energy supply is dependent on maintaining a balance between energy supply and demand, as well as a robust energy infrastructure. Studies at the federal level have indicated that the reliability of our energy infrastructure can be improved through the increased use of renewable energy sources to displace



## January 2004

Effective January 14, 2004, the Council approved temporary regulations establishing the policies and procedures for regulating the County electricity procurement process. These regulations include rules regarding the solicitation process, source selection, contract types, department responsibilities, contractor qualifications, payments, claims, solicitation protests, contract disputes, ethics in public contracting, and the minority owned business purchasing program. After a period allowed for public comment, the regulations were made permanent.

On January 20, 2004, the Council introduced a resolution in response to the decision by WSSC to purchase electricity separately from the County joint-pur-

chase buying group. The disbursement of renewable energy resources provides resistance to supply disruptions resulting from fuel shortages, accidents, or terrorism.

The Metropolitan Washington Council of Governments (COG) recently engaged the services of a contractor to develop a Regional Energy Policy, with the participation of COG member jurisdictions. Montgomery County is an active participant in this regional effort as a member of COG's Energy Policy Advisory Committee. A regional approach to energy efficiency and renewable energy efforts is expected to enhance Montgomery County's local efforts to wisely manage all energy resources.

There are no changes to the existing Energy Policy recommended at this time.

# Recent Activities

The Department of Environmental Protection is responsible for implementation of the Energy Policy on a County-wide basis. The following is a description of recent activities targeted at meeting policy objectives for the County as a whole, and the surrounding region (as it affects the residents of Montgomery County).



## Energy Wise Office Program

The Energy Wise Office (EWO) program was created by Council resolution. The program has been brought under the umbrella of the County Environmental Policy, and is implemented as a function of the Environmental Policy Working Group. As such, the EWO program has been incorporated into agency Environmental Policy Action Plans. In addition, a memo from the CAO to all County Department Heads, dated April 30, 2004, announced the Environmental Policy, and required that three specific measures be fully implemented by July 1, 2004:

1. Instruct employees that lighting should be turned off in unoccupied areas, such as empty offices or conference rooms, storage areas, or other spaces that are not actively being used. This is particularly important when employees leave at the end of the day.
2. Instruct employees that desktop computers and monitors are to be turned off at the end of the workday, unless overnight maintenance or data management is required. In the near future the County will also implement a "Monitor Management" program that will remotely power-down computer monitors during prolonged periods of inactivity.

3. Assign one or more employees in each work area to check for lights or equipment that is left on at the end of the workday. They should turn off lights, photocopiers, printers, fax machines, or other office equipment that will not be in use overnight.

Presentations on energy saving measures to be taken by County employees, and the environmental benefits of those measures, have been provided to nine departments or employee groups to date: Community Use of Public Facilities, Corrections and Rehabilitation, County Attorney's Office, Environmental Protection, Management and Budget Office, Technology Services, County Council staff, Environmental Policy Working Group, and a Cohort of MLS trainees.

## State Legislation

The Department of Environmental Protection coordinates with the Office of Intergovernmental Relations (OIR), and receives input from the Montgomery County Energy and Air Quality Advisory Committee (EAQAC) and community based organizations, to identify and support State legislation that is consistent with the County's Energy Policy objectives. As a result, the following legislation was passed, with support of Montgomery County, during the 2004 legislative session:

### Renewable Energy - Portfolio Standard, Fund, and Credit Trading System

The General Assembly passed legislation that requires that a minimum percentage of all electricity sold in Maryland be provided from renewable energy resources, beginning in 2006. The bill also directs the Maryland Public Service Commission (PSC) to establish a market-based renewable energy credit system and a Maryland Renewable Energy Fund.

### Appliance Energy Efficiency Standards

Over the veto of Governor Ehrlich, the Maryland legislature passed an energy efficiency law requiring that nine products meet specific efficiency standards: torchiere lighting fixtures, unit heaters, low-voltage dry-type distribution trans-

formers, ceiling fans and ceiling fan light kits, red and green traffic signal modules, illuminated exit signs, commercial refrigeration cabinets, large packaged air-conditioning equipment, and commercial clothes washers. Beginning March 1, 2005, new products subject to the Act may only be sold in the State if they meet these energy efficiency standards.

## Solar Grant Program

This program provides funding for a portion of the costs to install certain qualifying solar energy systems on residential and commercial buildings. The Maryland Energy Administration will develop program guidelines and begin taking applications in January 2005.



## Outreach and Education

The Department of Environmental Protection conducts outreach and educational campaigns for County residents and businesses on a variety of topics, including home and office energy efficiency, renewable energy applications, and energy-conserving landscaping practices. Campaigns include web site development, printed materials, advertising, and cable television programs. The following information resources are currently available on the DEP website:

- Set it Low When You Go: Free Key Hook Campaign
- Agency Resource Conservation Plans



## Recent Activities, continued

- Appliance Shopping
- Washers and Dryers
- Solar Hot Water
- Solar Power
- Energy Wise Homes
- Electricity Deregulation: Power Shopping
- Landscaping to Save Energy in Winter
- Landscaping to Save Energy in Summer
- Light Pollution
- Montgomery County Energy Policy
- Montgomery County's First Fully Renewable-Energy Home
- Need Help With Your Electric Bills?
- Solar Energy
- Summer Cooling Tips
- Tax Credits: Energy Efficient Appliances
- Tax Credits: Purchase of Electric/Hybrid Electric Vehicles
- Winter Heating Tips
- Climate Protection Initiative: Greenhouse Gas Emissions Inventory



The Department of Environmental Protection assists the Department of Health and Human Services, Office of Home Energy Programs, to provide annual Energy Assistance Expos for low-income and fixed-income residents of Montgomery County. The Expos feature opportunities to apply for funding from a variety of energy assistance and family assistance sources, and provide information on residential energy cost saving practices. A significant portion of the cost of hosting the Expos is provided by local energy and water utility companies. This year's Expo was attended by over 1,200 county residents.

The staff of the Department of Environmental Protection represents the County at a variety of events and meetings, nationwide, to demonstrate the leadership of Montgomery County in implementing Energy Policy objectives, and to establish partnerships and organizational links with other jurisdictions and stakeholders. The following presentations were made by the County's Energy Planner in 2004:

- End User Demand for Renewable Energy Benefit Calculations, NAFTA Commission for Environmental Cooperation Renewable Energy Working Group, World Resources Institute, Washington, D.C., November 4, 2004.
- Montgomery County Wind Energy Purchase, Ninth Annual Green Power Marketing Conference, Albany, New York, October 5, 2004.
- Certificate Markets for Emissions, Renewable Energy and "Negawatts," 2004 Northeast Sustainable Energy Association, Mid-Atlantic Sustainability Conference, Trenton, New Jersey, September 30, 2004.
- Regional Wind Power Purchase, EPA Air Innovations Conference, Chicago, Illinois, August 10, 2004.
- Case Study: Montgomery County Regional Purchase of Renewable Energy Credits (RECs), Emissions Marketing Association, Issue Forum on Expanding Markets for Renewable Energy through RECs Trading, Washington, D.C., June 3, 2004.
- Electricity Procurement in a Deregulated Environment, Briefing to the College Park City Council, College Park, Maryland, April 20, 2004.
- Wind Energy as a Means of Regulatory Compliance: Regional Wind Energy Purchase in the State Implementation Plan for Compliance with the Clean Air Act, International City/County Managers Association Wind Energy Web Cast, March 24, 2004.



### Cable Television Outreach

- *The Green Man Show: "Wind Energy,"* Montgomery County Cable, taped August 23, 2004
- *A Closer Look: "Renewable Energy and Alternative Fuels,"* Montgomery County Cable, taped July 13, 2004
- *The Green Man Show: "Summer Cooling Tips,"* Montgomery County Cable, taped May 17, 2004

### Wind Energy Purchase

Montgomery County led a wind energy purchase by a regional partnership including Prince George's County, Montgomery County Public Schools, Montgomery College, Maryland National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Housing Opportunities Commission, and eleven municipal governments. Five percent of the electricity used by this partnership comes from wind energy, beginning July 1, 2004. This amount, over 38.4 million kilowatt hours per year, represents the largest wind purchase ever made by a local government organization in the US. This effort was spearheaded by the County's Department of Environmental Protection, and the procurement effort was headed by the Department of Public Works and Transportation.

A unique feature of this purchase is its inclusion in the regional implementation plan (Metropolitan Washington Regional SIP) for meeting ground-level ozone standards under the Clean Air Act. Through a "customized" set of criteria for renewable

## Recent Activities, continued

energy credits (RECs), Montgomery County has become a participant in the State's NOx set-aside program. "Allowances" will be assigned to the County by the State, in proportion to the amount of wind power purchased by the buying group each year, and "retired" to meet the requirements of the SIP. Once this measure receives EPA approval, it will establish a national precedent for the use of renewable energy to meet federal regulatory requirements for air quality attainment standards.

To assist the County in implementing this innovative measure, the US Environmental Protection Agency issued, "Guidance on State Implementation Plan (SIP) Credits for Emission Reductions from Electric-sector Energy Efficiency and Renewable Energy Measures," in August of 2004, citing the Montgomery County example as an appropriate approach to incorporating renewable energy in a SIP, and encouraging other jurisdictions to follow our example.

On Friday, May 7, the electricity buying group entered into a contract with Washington Gas Energy Services for an amount equal to five percent of their electricity supply (on an annual kilowatt-hour basis) to be purchased from wind energy generation sources. The contract term is two years. The price will be slightly less than one and one half cents per kilowatt hour.

The wind power will be generated in an area in West Virginia, where a number of polluting coal power plants are located. Emissions from these power plants are delivered on prevailing winds to the Washington Metropolitan region. The wind power purchase will help to offset some of these environmental emissions, and provide cleaner air to the residents of Montgomery County. This program results in an annual reduction of 5,000 pounds of nitrogen oxides (NOx) per year. NOx is a precursor of ground level ozone.

This purchase exceeds the County's commitment to buy clean or green energy under the EPA's Green Power Partnership program. The purchase will also be a major step toward meeting goals for the reductions of greenhouse gas emissions that contribute to global climate change.

### Climate Change Action Plan

Montgomery County recently received a grant from the Maryland Energy Administration to complete a comprehensive greenhouse gas (GHG) mitigation action plan. The Plan will incorporate community input, and will be presented to the County Executive and the County Council. It is anticipated that the Plan will be sufficient in scope and level of technical accuracy to secure local funding for the implementation of measures recommended in the plan.

In preparation for development of the Action Plan, DEP completed an inventory of sources of GHG emissions in the County, and gathered information from constituents and other sources to compile a list of potential GHG reduction measures. A contractor has been hired to evaluate the effectiveness of potential measures and conduct cost-effectiveness analyses. The contractor is currently coordinating the development of the Action Plan with the Energy and Air Quality Advisory Committee, under the direction of DEP staff.

### ICEUM

A representative of the Department of Environmental Protection serves as chair of the Interagency Committee on Energy and Utilities Management (ICEUM). One role of the chair has been to encourage ICEUM member agencies to move toward a uniform format for the preparation of agency Resource Conservation Plans. These plans document the efforts of each agency to control energy use and cost through ongoing energy management programs. DEP collects and compiles RCP documents from ICEUM members for presentation to the County Council, concurrently with the annual Energy Policy Report.

In order to provide County agencies with continued protection from electricity price volatility, the members of the Interagency Committee on Energy and Utilities Management (ICEUM) have been engaged in the process of joint-purchase of electricity. The lead procurement agency is the County government Department of Public Works and Transportation (DPWT). Through a com-

petitive process, DPWT obtained the services of an energy consultant to assist in the procurement. Electricity purchases are conducted via a two stage procurement process. In order to streamline the procurement process, enhance competition, and facilitate the greatest possible cost savings for the County, the procurement is conducted under new regulations drafted specifically for electricity and natural gas purchases, and approved by the County Council.

Natural gas procurements are also negotiated to jointly benefit all ICEUM member agencies. At present, the lead procurement agency for natural gas is Montgomery College. ICEUM members lock in gas prices, under the terms outlined by the College, at dates selected at each agency's discretion.



**Program Manager Ann Elsen receiving Green Power Partner of the Year Award**

### Awards

In 2004, Montgomery County received several awards in recognition of programs and activities undertaken to implement elements of the Montgomery County Energy Policy:

- Clean Air Partnership Award: The Washington Metropolitan Council of Governments
- Green Power Partner of the Year Award: Green Power Partnership
- Citizens for Pennsylvania's Future (PennFuture) Award for Landmark Clean Electricity Purchase: "Cleanest County in Maryland Award"
- The U.S. EPA: Recognition for the Largest Local Government Purchase of Wind Power in the U.S.
- Pegasus Award: Award of Excellence: The Green Man Show - Energy Vampires

# DEP Energy Work Program

## Ongoing Programs and Activities:

DEP will continue to pursue each of the activities described in the previous section of this report, and will undertake new energy initiatives as staff resources permit (currently one FTE).

It is in the interest of Montgomery County to increase the amount of renewable energy produced in the region. Therefore, DEP staff will continue to work with ICEUM member agencies to identify and pursue options for the purchase of electricity that is generated using renewable resources, in the most cost-effective manner possible. DEP will also explore options to expand the purchasing group for renewable energy to secure a lower-price higher-volume renewable energy purchase.

Efforts to promote and implement energy efficiency will continue. DEP staff will continue to provide support for the Montgomery County Energy & Air Quality Advisory Committee, and chair the Interagency Committee on Energy and Utility Management. Staff will also continue to serve on the Metropolitan Washington Council of Governments' Energy Policy Advisory Committee.

DEP staff will continue to monitor the implementation of utility deregulation in Maryland. This will include the development and distribution of information resources for Montgomery County residents and businesses. DEP will also strive to ensure that County facilities, residents, and businesses are well informed of changes resulting from deregulation, and from the recent termination of price caps for Standard Offer Service. To that end:

DEP will work with the Office of Intergovernmental Relations (OIR) and the HCD Division of Consumer Affairs, to ensure that statewide consumer education efforts on electricity deregulation are continued and provide consumers with "apples to apples" comparisons of electricity products, and will recommend amendments to the Customer Choice Act, if needed.

DEP staff will continue to monitor the PSC activity on implementing the Renewable Portfolio Standard legislation that passed last session. If, at any time, it appears that the PSC is taking the Standard in a direction that would be detrimental to the voluntary renewable market in Maryland, and specifically to our wind energy purchase, the County will need to be prepared to recommend legislative changes to the RPS bill to strengthen it.

DEP will continue to monitor PSC progress on developing a uniform and enforceable disclosure system that can be obtained and understood by electricity customers. The existing system may be modified over the coming year to account for Renewable Energy Credits (RECs). The method for tracking RECs for disclosure purposes would ideally be consistent with the method used to verify the Renewable Portfolio requirement.

DEP will seek clarification on the definition of "small business" in relation to the prohibition on Municipal Aggregation in the Customer Choice Act, in order to determine whether the existing legislation prohibits the County from purchasing power, or RECs, in joint purchase with businesses in Montgomery County.

## New Initiatives

The following initiatives will be pursued as to the extent that staff resources are available:

### Clean Energy Rewards Program

If approved by the County Executive and County Council, this potential new program will provide consumers with rebates on renewable energy purchases. Under the current bill, DEP will be charged with implementing the program.

### Regional Energy Policy

To be developed by MWCOG. DEP staff serves on the Energy Policy Advisory Committee, which will be working with a COG contractor to draft a regional assessment of energy demand and resources, and identify areas for regional cooperation on policy issues.

## Environmental Preferable Purchasing

Incorporated within the Pollution Prevention Program. The DEP energy planner will assist the manager of the Pollution Prevention program to ensure that members of the Environmental Policy Working Group have adequate training, information, and resources to bring County departments into compliance with the Environmental Policy in regards to the purchase of recycled, energy efficient, or environmentally preferable office equipment, products, and furnishings.

## Legislative Activities

DEP staff will assist OIR to provide support for the following potential legislation, provided that it is appropriate and in the interests of Montgomery County:

### Four Pollutant (4P) Bill

As a result of the Environmental Summit, DEP will work with OIR to provide comments or testimony in support of a bill to control four pollutants from Maryland electricity generating plants.

### System Benefits Fund

Statewide fund generated from fees collected from electricity customers, invested in measures that reduce electricity consumption, particularly peak consumption. In many states such a fund is also used to increase the amount of renewable energy generated in the state.

### Energy Efficiency Incentives

Maryland had a program in place to waive the state sales tax on certain consumer products that are particularly energy efficient. That program ended for most products in June of 2004, but could be extended by legislation for several additional years. Tax incentives included: (1) Highly Efficient Heating and Cooling Products, (2) Electric and Hybrid Vehicles, (3) Solar Energy Systems, and (4) Renewable Energy Production.

## DEP Energy Work Program, continued

### Long Term Goals

The following is a summary of DEP's long term objectives in implementing the Montgomery County Energy Policy:

Seek ways to further the concept of sustainable communities and sustainable development. Sustainability is inextricably linked to environmental programs, which promote the increased use of renewable resources and the efficient use of non-renewable resources. Implementation over a period of time of each item on Montgomery County's 15-point energy policy would help build a sustainable community.

Continue to improve the efficient use of energy resources in County facilities and fleets, and provide information and assistance to County residents and businesses to increase awareness of energy efficiency opportunities, and help implement energy efficiency improvements. Work with County departments to include energy efficiency measures in their Environmental Policy Action Plans.

Enhance energy security by taking steps to increase the resilience of the energy infrastructure, and develop a diverse and robust energy resource mix. Annex U of the County's emergency preparedness plan addresses short term energy supply

disruptions. It might be possible to prevent or reduce such disruptions through improvements to electricity and gas transmission, increased use of distributed generation sources, and development of renewable energy.

### Additional Information

Resources regarding Montgomery County's Energy Policy and Programs can be found online at [www.montgomerycountymd.gov](http://www.montgomerycountymd.gov). The Energy Program webpage can provide the following resources:

- County Energy Policy (Amended 2003)
- County Code Chapter 18-A

- County Code, Sec. 8-14A - Energy Performance Standards for County Buildings - Regulations
- Informal Comments on the Draft Regulations for the Maryland Renewable Portfolio Standard Program
- Joint Comments to the Draft Maryland Renewable Portfolio Standard Regulations Released March 8, 2005
- Comments of Montgomery County on the Draft Regulations (Version 2)

for the Maryland Renewable Portfolio Standard

- EAQAC: Comments Concerning Maryland Renewable Portfolio Standard Program Regulations
- Petition for Leave to Intervene in the Matter of the Commission's Inquiry into the Implementation of the Renewable Energy Portfolio Standard



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